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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,307	11/18/2003	Dwayne Need	MS 305610.01/60001.314US0	6488
7590 Robert A. Kalinsky Merchant & Gould P.C. P.O. Box 2903 Minneapolis, MN 55402-0903			EXAMINER TRUONG, LECHI	
			ART UNIT 2194	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/717,307	NEED ET AL.	
	Examiner	Art Unit	
	LeChi Truong	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/12/2005, 4/23/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-21 are presented for the examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of Patent (US 7,143,218 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because both computer systems comprise substantially the same elements, the difference between claims 1, 15 of the application and the patent is the use of a control element. It would have been obvious to one of ordinary skill in the art to include the control since it was well known at the time of the invention to improve the efficiency, interactivity and flexibility of legacy user terminal interfaces with the control element to display the shortcut key.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 11-14 are rejected as non-statutory because it is not tangibly embodied.

Claim 11 defines a computer readable medium in the preamble. However, the specification discloses this medium in a carrier wave. Carrier waves are not the tangible medium; therefore, claims 11-14 are non-statutory.

5. The language of claim 11-14 raise a question as to whether the claims are abstract idea and would not result in practical application producing a useful, concrete, and tangible result to form the basic of statutory subject matter under 35 U.S.C 101. For example, a first binding table for an application element, a second binding table for a control element are abstract ideas that do not produce any tangible result< e.g. just a though or just a compotation within a processor with is not out put to create a tangible result which enables the usefulness to be realized.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **1, 15, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934778 B2) in view of Liebnow (US. Patent 5,881318).

As to claim 1, Numano teaches the invention substantially as claimed including: a memory (A BIOS is stored in the BIOS-Rom 212, col 4, ln 4-5), an input module that accepts input from a device (a key on the keyboard 11 is depressed by the user, col 4, ln 7-10), a control element located at a control level (the control program 304, col 4, ln 49-55/ Fig. 3), a table (the shortcut table 405, col 6, ln 10-13/ Fig. 3), associated action (copy, cut, paste, col 6, ln 15-20), the control element having a table of control bindings that connect input to associated action(col 6, ln 10-10), each control binding in the table of control bindings including a command binding and associated command handler(col 5, ln 11-15) , a processor(a CPU 201, col 3, ln 20-25), receive the input from the input module(col 9, ln 15-20), pass the input to the control element,(col 4, ln 21-23), the control element looking up a matching command binding associated with the input in the table of control bindings(col 6, ln 9-15) .

Numano does not explicitly teach invoke a command handler associated with the matching command binding if the matching binding is found in the table of control bindings. However, Liebenow teaches invoke a command handler associated with the matching command binding if the matching binding is found in the table of control bindings (if the keystroke FUNCTION Z is pressed... the controller signals this information to the BIOS. The BIOS then looks up in the look-up table that this keystroke corresponding to the STOP audio function, and signals the CD_ROM player to execute the STOP audio function, col 5, ln 37-43/ Fig. 3).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Numano and Liebnow because Liebnow's invoke a command handler associated with the matching command binding if the matching binding is found in the table of control bindings would improve the teaching of Numano's system by permitting the control functionality to execute the keystroke codes regardless of what stand-alone program is running on the operating system.

As to claims 15, 21, they are apparatus claims of claim 1; therefore, they are rejected for the same reason as claim 1 above.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934,778 B2) in view of Liebnow (US. Patent 5,881,318), as applied to claim 1 above, and further in view of Johnson et al (US. 5,761,420).

As to claim 2, Numano teaches each control binding in the table of control bindings including a command binding and associated command handler (col 5, ln 11-15), a processor (a CPU 201, col 3, ln 20-25), receive the input from the input module (col 9, ln 15-20), pass the input to the element, (col 4, ln 21-23), the element looking up a matching command binding associated with the input in the table of control bindings (col 6, ln 9-15) and Liebnow teaches invoke a command handler associated with the matching command binding if the matching binding is found in the table of control bindings(if the keystroke FUNCTION Z is pressed... , the controller signals this information to the BIOS. The BIOS then looks up in the look-up table

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that this keystroke corresponding to the STOP audio function, and signals the CD_ROM player to execute the STOP audio function, col 5, ln 37-43/ Fig. 3).

Numano and Liebnow do not teach the application element having a table of application bindings that connect input to associated action. However, Johnson teaches the application element having a table of application bindings that connect input to associated action (a plurality of command map tables 50, one each for the well known editors such as MICROSOFT WORK, WordPerfect, LOTUS 1-2-2, etc. The set of command sequences 54 comprises the actual sequences of keystrokes to carry out the native command, col 4, ln 23-28), the command map table 50 includes two sets of fields, a set of native commands 52 and a set of command sequences 54, col 4, ln 10-15).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Numano, Liebnow and Johnson because Johnson's the application element having a table of application bindings that connect input to associated action would improve the teaching of Numano and Liebnow's systems by providing a more efficient communication from one person to another or to several others to edit a document.

8. Claims **3-10, 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934,778 B2) in view of Liebnow (US. Patent 5,881,318), as applied to claim 1 above, and further in view of Flincham et al (US. 6,307,548 B1).

As to claim 3, Numano and Liebnow do not teach, a second control element with a second table of control bindings. However, Flincham teaches, a second control element with a

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second table of control bindings (present object lists [table] created dynamically by the disambiguating software process from a parent and a child in a vocabulary module tree. Object list 430 is an object list containing objects 1-N1 associated with a node representing two keystrokes. Object list 440 is an object list of all objects that are associated with a node representing three keystrokes, col 13, and ln 53-60).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Numano, Liebnow and Flinchem because Flinchem's a second control element with second table would improve the teaching of Numano and Liebnow's systems by allowing a disambiguating system that minimizes the ambiguity of entered keystrokes and also maximizes the efficiency with which user can resolve any ambiguity during text entry.

As to claim 4, Flinchem teaches passing of the input from the control element to the second control element is a bubble operation, and wherein the processor is programmed to perform a plurality of bubble operations until the matching command binding is found (col 12, ln 62-67).

As to claim 5, Flinchem teaches the control element and the second control element each form a node in a tree (col 12, ln 49-55), wherein the tree (includes a plurality of additional nodes, each additional node including a table of bindings)(col 13, ln 55-63).

As to claim 6, Liebenow teaches the table of control bindings includes at least a command binding, a command, and a command handler (Fig. 3).

As to claim 7, Flinchem teaches pass a command associated with the matching command binding from the control element to the second control element (col 12, ln 62-67).

As to claim 8, Liebnow teaches each control binding in the table of control bindings includes at least a command binding, a command, and a command handler (col 5, ln 37-45/ Fig. 3).

As to claim 9, Flinchem teaches an application and a plurality of control elements associated with the application (col 12, ln 48-53), wherein each of the plurality of control elements including a table of control bindings that connects input to associated action (col 13, ln 53-60).

As to claim 10, Flinchem teaches the table of control bindings of each of the plurality of control elements differs for each control element (col 13, ln 53-60).

As to claims 17-20, they are apparatus claims of claims 3, 4, and 7; therefore, they are rejected for the same reasons as claims 3, 4, 7 above.

6. **Claim 11 is** rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934,778 B2) in view of Johnson et al (US. 5,761,420).

As to claim 11, Numano teaches a control element located at a control level (the control program 304, col 4, ln 49-55/ Fig. 3), a table (the shortcut table 405, col 6, ln 10-13/ Fig. 3), associated action (copy, cut, paste, col 6, ln 15-20), the control element having a table of control bindings that connect input to associated action(col 6, ln 10-10), each control binding in the table of control bindings including a command binding and associated command handler(col 5, ln 11-15)

Numano and Liebnow do not teach the application element having a table of application bindings that connect input to associated action. However, Johnson teaches the application element having a table of application bindings that connect input to associated action (a plurality of command map tables 50, one each for the well known editors such as MICROSOFT WORK, WordPerfect, LOTUS 1-2-2, etc. The set of command sequences 54 comprises the actual sequences of keystrokes to carry out the native command, col 4, ln 23-28), the command map table 50 includes two sets of fields, a set of native commands 52 and a set of command sequences 54, col 4, ln 10-15).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Numano and Johnson because Johnson's the application element having a table of application bindings that connect input to associated action would improve the teaching of Numano's system by providing a more efficient communication from one person to another or to several others to edit a document.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934,778 B2) in view of Johnson et al (US. 5,761,420) , as applied to claim 11 above, and further in view of Gibson (US. 6,313,854 B1).

As to claim 12, Numano and Johnson do not teach the application element and the control element form nodes in a tree. However, Gibson teaches the application element and the control element form nodes in a tree (a primary application window including several secondary windows ("child" windows) 3a, 3b, 3c which are enclosed by parent window 1... control of

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objects (text, chart and graphics) within the child windows, col 1, ln 22-32/ window control buttons are provided for parent window 1, col 2, ln 23-24).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Numano, Johnson and Gibson because Gibson's the application element and the control element form nodes in a tree would improve the teaching of Numano and Liebnow's systems by allowing the user to extent more control over each frame without increasing the visual complexity.

10. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numano (US. Patent 6,934,778 B2) in view of Johnson et al (US. 5,761,420), in view of Gibson (US. 6,313,854 B1) and further in view of Flinchen et al (US 6,307,548).

As to claim 13, Numano, Johnson and Gibson do not teach plurality of additional nodes, each node of the plurality of additional nodes including a table. However, Flinchem teaches plurality of additional nodes, each node of the plurality of additional nodes including a table (present object lists [table] created dynamically by the disambiguating software process from a parent and a child in a vocabulary module tree. Object list 430 is an object list containing objects 1-N1 associated with a node representing two keystrokes. Object list 440 is an object list of all objects that are associated with a node representing three keystrokes, col 13, ln 53-60).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Numano, Johnson, Gibson and Flinchem because Flinchem's a second control element with second table would improve the teaching of Numano, Johnson and

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Gibson's systems by allowing a disambiguating system that minimizes the ambiguity of entered keystrokes and also maximizes the efficiency with which user can resolve any ambiguity during text entry.

As to claim 14, Flinchem teaches the binding of at least one of the first bindings includes a field indicating if the binding is enabled (col 22, ln 49-53).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

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LeChi Truong

March 1, 2007



WEI ZHEN
SUPERVISORY PATENT EXAMINER